Jesus Mancilla

Senior Quantitative UX Researcher
Survey Analytics, Behavioral Logs, Experimentation, KPI Development, Mixed Methods, AI-supported Analysis
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Professional Summary

Senior **Quantitative UX Researcher** with a strong **applied ML** toolkit to scale insights: modular survey analysis systems, hybrid classifiers for open-ended responses, and AI-indexed research repositories. Proven impact at **Meta, Roku, Walmart**—compressing analysis cycles (~30 hrs to <8 hrs), enabling org-wide self-serve insights, and tying behavioral telemetry to KPIs to drive product decisions.

Research Toolkit & Domains

Quant Methods: Survey design/analysis, sampling, regressions, ANOVA, T-tests, dashboards
Behavioral Data: Telemetry pipelines, event schema, large-scale log analysis, KPI definition
Mixed Methods: Triangulation with qual, diary/longitudinal studies, insight synthesis
ML/AI Assist: Open-ended classification, clustering, retrieval, LLM-augmented analysis
Tools: Python, R, SQL, Tableau, Jupyter, LangChain, FastAPI; Next.js for insight portals
Collaboration: Stakeholder alignment, roadmapping, experiment design, exec reporting

Work Experience

Argomai — Houston, TX (Remote)
Senior Quantitative UX Researcher — Jan 2025 – Present

- Cut multi-page document classification from ~**90 min** → <**5 min** via retrieval + workflow automation; reduced PM reporting from **6 h/wk** → <**1 h**.
- Built reusable analysis components (**embeddings**, prompt templates, orchestration SDK) enabling faster **open-ended response** synthesis across studies.
- Operationalized insights with **RAG** and **knowledge search** patterns to improve findability and evidence traceability in stakeholder decisions.
- Partnered with execs to translate research findings into **metrics, roll-out plans, and decision checklists**; improved cycle time and confidence for go/no-go calls.

Meta — Houston, TX (Remote)
Senior Quantitative UX Researcher — Jan 2024 – Jan 2025

- Built a **hybrid classifier** for open-ended survey responses (clustering, few-shot, human-in-the-loop, multi-agent reasoning) to triage at scale.
- **Reduced analysis time from ~30 hrs to <8 hrs**; shipped Python analytics toolkit (regressions, ANOVA, T-tests) reused across teams.
- Merged editor behavioral logs with in-app surveys to deliver comprehensive, action-oriented insights that shaped roadmap priorities.
- Ran longitudinal research and bi-weekly tracking for a new ML product with **500M+ MAU**, defining success metrics and monitoring performance.

Roku — San Jose, CA
Senior User Experience Researcher — Jan 2021 – Nov 2023

- Developed the **Modular Survey Analysis System**: end-to-end ML-assisted report generation (stats + NLP categorization) for survey data.
- Built an **AI-indexed research database**; **cut weekly report generation from ~4 hrs to <5 min** with automation and LLM summaries.
- Led quant/qual device research; conducted **behavioral log analysis across 70M+ devices** to inform product decisions and KPI targets.

Walmart Global Tech — Sunnyvale, CA
Senior User Experience Researcher — Aug 2019 – Nov 2020

- Established KPIs and analytics for Sam's Club mobile app; integrated interaction data with business metrics to guide UX strategy.

Scrapworks Inc. — Palo Alto, CA
Data Scientist — Sep 2017 – Aug 2019

- Reduced forecasting error by **60%** using deep learning; delivered dashboards over 20 years of sales data (**+30% sales growth**).
- Initiated NLP classification and productionized data ingestion; informed product and operations decisions.

Additional Experience

Suggestic Mexico City, Mexico
User Experience Researcher Dec 2016 – Sep 2017
- Executed data-driven testing and analysis; designed advanced prototypes to validate feature concepts.

Stanford University Stanford, CA
User Experience Researcher May 2016 – Nov 2016
- Conducted research on driver stress using multimodal data; contributed to algorithms with **90% accuracy**.
- Co-authored publications on automotive UI and pedestrian interactions.

ITAM Mexico City, Mexico
User Experience Researcher Aug 2014 – May 2016
- Analyzed psychophysiological signals; created custom visualizations to translate findings into design guidance.

Selected Research/Systems Projects

Research Librarian (AI Index) — Improved **findability and reuse** of insights via embeddings, vector search, and custom ranking.

Modular Survey Analysis System — ML-assisted pipeline to **auto-generate survey reports** with stats and NLP categorization.

Customer Support Insights — RAG and evaluation framework to **summarize support knowledge** and instrument outcomes for leadership.

Education

Instituto Tecnológico Autónomo de México (ITAM)
M.S. in Computer Science (HCI/AI Focus) 2014 – 2016

Universidad de Colima
B.A. in Psychology 2009 – 2013

Selected Publications

Ramos-Rivera, R. E., Santana Mancilla, P. C., Garcia-Mancilla, J., & Gaytán-Lugo, L. S. (2025). Language models in education: Generative AI to optimize teacher performance analysis. InnovAcademica, 1(2), 74–85.

Ramos-Rivera, R. E., Garcia-Mancilla, J., Cárdenas-Villa, G. E., & Santana-Mancilla, P. C. (2024). Towards Improving Teacher Performance Assessment through Human-Centered AI-Powered Survey Analysis: An Approach Using Large Language Models (LLM). Avances en Interacción Humano-Computadora, 9(1), 261-264.

Baltodano, Sonia, Jesus Garcia-Mancilla, and Wendy Ju. "Eliciting Driver Stress Using Naturalistic Driving Scenarios on Real Roads." In Proceedings of the 10th International Conference on Automotive User Interfaces and Interactive Vehicular Applications, pp. 298-309. ACM, 2018.

Currano, Rebecca, So Yeon Park, Lawrence Domingo, Jesus Garcia-Mancilla, Pedro C. Santana-Mancilla, Victor M. Gonzalez, and Wendy Ju. "¡Vamos!: Observations of Pedestrian Interactions with Driverless Cars in Mexico." In Proceedings of the 10th International Conference on Automotive User Interfaces and Interactive Vehicular Applications, pp. 210-220. ACM, 2018.

J. Garcia-Mancilla, J. E. Ramirez-Marquez, C. Lipizzi, G. T. Vesonder, and V. M. Gonzalez, "Characterizing negative sentiments in at-risk populations via crowd computing: a computational social science approach," International Journal of Data Science and Analytics, Jun. 2018.

For full list, see: jgmancilla.com/research-papers